

## ABSTRACT OF THE DISCLOSURE

A low attenuation optical fiber which falls within 2-14 ps/nm/km in absolute value of dispersion over the full wavelength range of 1530-1565 nm and no more than 0.25 dB/km of transmission loss at 1550 nm of wavelength at ordinary temperature and relative humidity, and still remains no more than 0.25 dB/km of transmission loss at 1550 nm or 1520 nm after its being long-enough exposed under ordinary atmospheric pressure consisting substantially of hydrogen; and which further comprises a polarization mode dispersion (PMD) of no more than 0.5 ps/ $\sqrt{\text{km}}$  at a wavelength of 1550 nm and a loss increase of no more than 40 dB/m in a bending diameter of 20mm.

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